

LIFE SCIENCE AREAS OF NATURAL AND SCIENTIFIC INTEREST IN SITE DISTRICT 7-4

A Review and Assessment of Significant
Natural Areas in Site District 7-4

September 1984



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Central Region, Richmond Hill



Ministry of
Natural
Resources

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For convenience, this report may be referred to as OFER 8404. It is one of a number of Open File Ecological Reports comprised of reconnaissance surveys and inventories of ecological areas in Ontario.

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PREFACE

In 1977, the Parks and Recreational Areas Programme of the Ontario Ministry of Natural Resources, with special funding approved by Management Board of Cabinet, initiated a provincial survey of natural areas in connection with park system planning. A parallel initiative focused on the identification of geological sites representative of Ontario's earth science diversity. The mandate for these surveys stem from the protection objective of the Ontario Provincial Parks Policy (1978), which is "to protect provincially significant elements of the natural and cultural landscapes of Ontario."

The overall objective of the natural areas survey is to identify a series of ecological areas that comprise the spectrum of natural landscapes, environments and biotic communities in Ontario. This objective issues from a Cabinet endorsed guideline of the 1978 parks policy which recognizes the role of provincial parks in protecting "a system of features representative of Ontario's life science history and diversity". With this aim, technical guidelines help to direct the selection, documentation and evaluation of natural areas throughout the site regions and site districts of the province.

Between 1980 and 1982, evaluations of remnant natural areas were undertaken in the site districts within the Central and Southwestern Regions of the Ministry. Through these assessments, the finest natural areas were chosen to complement natural features already represented within a series of Nature Reserves proposed through an earlier review of the provincial parks and park reserves (Lindsay and Hanna, 1980). In addition, natural areas identified through this survey complement the Candidate Nature Reserves already proposed for the Niagara Escarpment Planning Area (Parks Planning Branch, 1976).

The present report was issued as a draft in 1980 under the title *An Identification and Evaluation of Life Science Candidate Nature Reserves in Site District 7-4*. Now in the final edition, it is one of a series of such reports which have been completed to date and are available as 'Open File Ecological Reports'. The findings of these reports have provided the basis for many of the 'Recommended Provincial Parks' announced by the Minister in June 1983, and the 'Areas of Natural and Scientific Interest' designated in the District Land Use Guidelines also released at that time.

Although evolution of the land use planning process since 1981 has produced new terminology incorporating natural areas, this nomenclature is not used in this report. Rather, natural areas are referred to as either Candidate Nature Reserves or as Significant Sites. This is distinct from the new terminology, as used in the District Land Use Guidelines (OMNR, 1983), which groups natural areas and geological sites as Areas of Natural and Scientific Interest (ANSIs).

According to the District Land Use Guidelines, ANSIs may vary in level of significance. The most significant of these, those referred to as Candidate Nature Reserves in this report make the greatest contribution to the Ministry's protection objective and are listed in the District Land Use Guidelines. ANSIs which contribute to a lesser degree to the provincial protection objective are referred to as Significant Sites in this report and are considered to be at least regionally significant. The policy statement for Areas of Natural and Scientific Interest is appended.

Site district evaluations in the Central and Southwestern Regions of the Ministry were carried out by three biologists — K.M. Lindsay, R. Hanna and R. Klinkenberg. Lindsay coordinated and directed the work, and evaluated Site Districts 6-5, 6-7 and 7-2. Hanna examined Site Districts 6-1, 6-6, 6-8, 6-13, 7-4, and 7-6; Klinkenberg examined Site Districts 7-1 and 6-1. While all three biologists shared common objectives and collaborated in developing evaluation techniques, each undertook field work and evaluation using methods appropriate to their respective site districts.

Each site district report includes an analysis and discussion of the natural features and natural areas of the site district, a discussion of the methodology, recommendations for further work and possible methods of natural areas protection. Check-sheets for Candidate Nature Reserves are appended, as are brief descriptions of other natural areas in the site district.

The information collected during the site district assessments forms the foundation of a provincial natural areas data base. This data base is being updated as new information is obtained. It is an important component for the planning process at district, regional and provincial levels of the Ministry. Readers are invited to add to the data base, either by contributing to studies conducted by the Ministry, or through information contributed to other groups seeking to protect natural areas.

Although site district assessments were designed to identify those natural areas which contribute mainly to the protection objective of the Ministry, this information should prove useful to regional and local governments, conservation authorities and other organizations involved with the identification and protection of significant natural areas. Protection of natural areas may be achieved in several ways, including the purchase of sites by outside agencies. Where natural areas designated as ANSIs occur on public lands managed by the Ministry, it will ensure that the land uses and activities which occur, provide for the protection of identified values. On private lands, the Ministry will, through cooperation with others, attempt to ensure that landowners are aware of the significant features on their properties and seek the owners' cooperation in protecting such features.

ACKNOWLEDGEMENTS

Many people contributed to the preparation of the site district reports. H. J. Featherston, H. Pronk, J. Griffin and G. Rodgers (Parks and Recreational Areas Section, Central Region, OMNR) played a major role in the administration of this project, providing continual and much appreciated logistic and technical support. G. Murphy and E. Martelle (Parks and Recreational Areas Section, Southwestern Region) also contributed substantially to this project. Technical direction for the project came from an informal committee composed of the Parks Coordinators of both regions, H. J. Featherston, G. Murphy, and E. Martelle; the Regional Park Planners, G. Rodgers, W. McNab and I. Seddon; and T. J. Beechey (Life Science Coordinator, Parks and Recreational Areas Branch, Queen's Park). Discussions on technical matters with T. J. Beechey, W. McNab and G. Rodgers proved especially valuable. This report was prepared under contract to J. E. Hanna Associates Inc., the Ontario Ministry of Natural Resources, however, undertook all aspects associated with report production.

Throughout the course of this project, K. Lindsay provided regular direction, encouragement and advice. P. Terpstra's assistance with background research, data analysis, map preparation, field work and report editing has been invaluable. L. Sajnovic supervised report typing with proficiency and looked after many other details.

The author would like to thank E. Hanna (J. E. Hanna Associates Inc.) for contributing specifically to the preparation of the Site District 7-4 report. Mr. Hanna discussed freely the method of site selection, provided information on specific sites and commented on drafts of this report. His ideas and support are appreciated and are reflected in the context of this report.

The draft Site District 7-4 report was reviewed by selected experts familiar with the geographical area under study in Site District 7-4. The comments made by S. Barrett, W. Crins, C. Risley, and S. Varga are appreciated and have been added to the data base for ANSIs at district and regional offices and the main office of the Ministry. These reviews generally confirmed the selection of ANSIs made by this site district study.

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1. Candidate Nature Reserves and Significant Sites in Site District 7-4	

SUMMARY

Encompassing a broad band along Lake Ontario from Whitby to Burlington and north-northwest to Richmond Hill and Georgetown, Site District 7-4 is characterized by the cliffs, terraces and ancient shorelines of the old Lake Iroquois lakebed. These landforms extend to 40-105 m in elevation above the current Lake Ontario level to meet the gently rolling drumlinized till plain and the irregular topography of the ground moraine of the South Slope. Rising in elevation another 65-115 m, the South Slope intercepts the undulating Peel Clay Plain. Once on the most productive dairy and livestock areas in southern Ontario, much of the Peel Plain has been or is being converted to urban land use. The remainder lies in the urban shadow with limited agricultural activity. Site District 7-4 is centred around the city of Toronto and includes the cities of Mississauga and Brampton, and the towns of Georgetown, Oakville, Woodbridge, Richmond Hill and Markham.

An overview of the physiographic regions and component landforms within Site District 7-4 indicated that the only vegetation-landform features which currently remain in a relatively undisturbed or natural state are: river/lakefront marshes, shoreline cliffs, river valley systems, and upland woodlots. The following eight candidate nature reserves, one of which is within a provincial park, were selected to represent the major vegetation-landform features of the site district. These sites are limited by the quality of the remnant landscape.

River/Lakefront Marshes	Lower Rouge Marshes (30M/14 510508) Rattray Marsh (30M/12 125190)
Shoreline Cliffs	Scarborough Bluffs (30M/11 430420)
River Valley Systems	Bronte Creek Provincial Park-Proposed Nature Reserve Zones (30M/5 005070) Rouge River Central Woodland Valley Complex (30M/14 490520)
Upland Woodlots	Roy Ivor's Woodlot (30M/12 075220) Boyd Conservation Area and Adjacent Lands (30M/13 140525) Iroquois Shoreline Woods (30M/5 065157)

All eight candidate nature reserves are recommended for protection. Five of the eight are highlighted because of their outstanding contribution: the Lower Rouge Marshes, Scarborough Bluffs, Bronte Creek Provincial Park-Proposed Nature Reserve Zones, Boyd Conservation Area and Adjacent Lands, and Iroquois Shoreline Woods.

1. INTRODUCTION

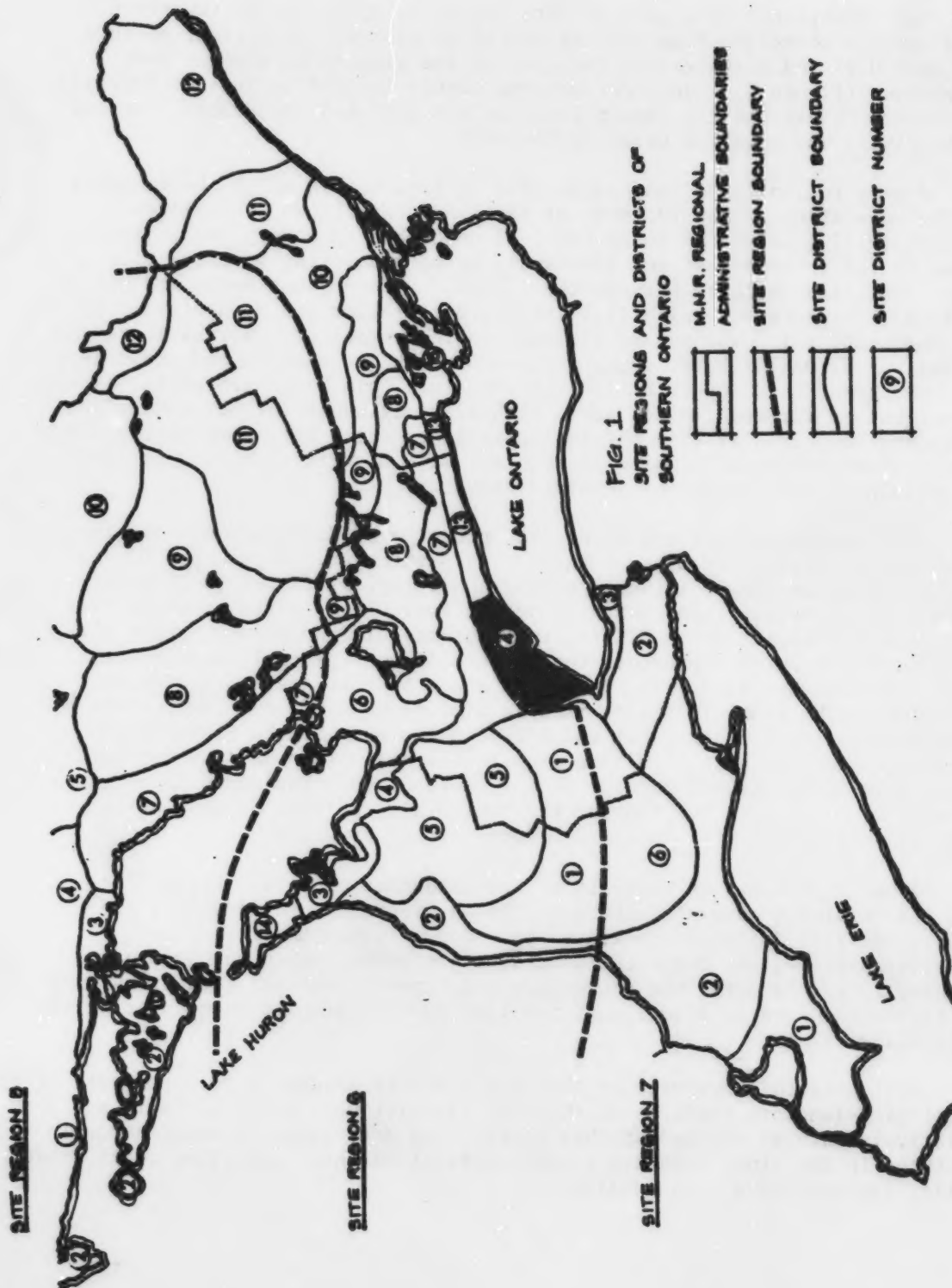
Site District 7-4, a part of Site Region 7, spans the northwestern Lake Ontario shoreline from west of Whitby to east of Burlington, north to Richmond Hill and northwest to the base of the Niagara Escarpment near Georgetown (Figure 1). Included are the deeply incised valleys of Oakville and Bronte Creeks and the Credit River in the west and the Humber, Don and Rouge Rivers and Highland Creek to the east.

A site region is defined as an area of land within which the response of the vegetation to the features of the landform follows a consistent pattern (Hills, 1959). Site Region 7 is described as a very smooth lacustrine plain in the extreme west and eastwardly as an undulating bevelled till plain with lacustrine deposits between the ridges. Hot dry, hot mesic and hot wet mesic sites (as defined by Hills, 1959) are characterized respectively by oak-chestnut, tulip-walnut and sycamore-tulip; normal dry, normal mesic and normal wet by oak-hickory, sugar maple-beech-oak and oak-ash; and, cold dry, cold mesic and cold wet by hemlock-yellow birch, elm-black ash-white oak and spruce-balsam fir-cedar-black ash. Each site region is further subdivided according to characteristic physiographic zones which set apart fairly large areas; these Hills called site districts. Site District 7-4 is described as a plain of water-laid and ice-laid deposits.

The categorizations and boundaries proposed by Hills do not coincide precisely with those of other authors. In particular, Chapman and Putnam (1973) recognize three distinct physiographic regions (refer to Glossary), namely the Iroquois Plain, South Slope and Peel Plain, parts of which fall within Site District 7-4. Cliffs, terraces and old shorelines typify the Iroquois Plain which represents the old bed of post-glacial Lake Iroquois. Sand, clay and bevelled till plains and shale bedrock are the predominant landforms. The Iroquois Plain rises in elevation 40 m above the current Lake Ontario level in the west and 105 m in the east at the Scarborough Bluffs to meet the gently rolling drumlinized till plain and the irregular topography of the ground moraine of the South Slope. The South Slope rises another 65 - 115 m to the foot of the Peel Plain, a level to undulating bevelled till plain with local sand deposits and drumlins.

Table 1 presents an analysis of the landscape of Site District 7-4 and its remaining natural features. The physiographic regions that lie within the site district are listed in order of importance. For each physiographic region, component landforms are given, based on Chapman and Putnam, 1972. As well, the percentage and types of natural areas remaining is estimated based on a review of the 1:50,000 topographic maps covering the site district.

Following this overview of the site district, between 1 to 5 per cent of the vegetation-landform features of the site district were found to be in a relatively natural and undisturbed state. The most common remnant natural features in the study area are river/lakefront marshes, shoreline cliff, river valley systems and upland woodlots.



Bronte Creek Provincial Park is the only provincial park in Site District 7-4. The proposed Nature Reserve zones within the park contain a variety of river valley vegetation types. Consequently, a nature reserve site selection program was undertaken to identify additional sites which would provide complete representation of the dominant, remnant, vegetation-landform features. The methodology of the natural features overview, identification of features not represented by parks, site selection procedure and a brief discussion of the results and recommended sites follows.

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE
BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 7-4

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx. Area		
Peel Plain	45	bevelled till plain with drumlins	90	-1-5% -narrow river and stream valleys -few tiny woodlots	-	-	-	-river valley system -upland woodlots	Boyd Conservation Area and Adjacent lands (30M/13 140525)
		sand plain	10	-10% -river valleys (Huttonville, Nashville)	-	-	-	-river valley system	-
		drumlinized till plain with drumlins	75	-1% -tiny scattered woodlots -creek valleys	-	-	-	-river valley system	Bronte Creek Provin- cial Park Proposed Nature Reserve Zones (30M/5 005070)
South Slope (also in 6-13, 6-7)	35	till moraine	15	-5% -tiny scattered wood- lots -creek valleys	-	-	-	-upland wood- lots	-
		shale plain	9	-1% -few woodlots -river valleys	Bronte Creek Provincial Park Propo- sed Nature Re- serve Zones	-river valley system (flood- plain, bottom- land, slope, tableland forests and prairie habitat)	120 ha (300 acres)	-river valley system -upland wood- lots	Bronte Creek Provin- cial Park Proposed Nature Reserve Zones (30M/5 005070) -Iroquois Shoreline Woods (30M/5 065155)
		esker	1	-0% -developed	-	-	-	-	-

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE
BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 7-4

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx. Area		
Iroquois plain (also in 6-13, 6-7 and 6-8)	25	sand plain with shorecliffs	70	-5% -river corridors (Credit River, Rouge River) -Scarborough Bluffs -Toronto Islands -few woodlots -Rattway Marsh	-	-	-	-river valley system -marsh -shoreline cliffs -shoreline beach/dune -upland wood- lots	-Rattway Marsh (30M/12 125190) -Scarborough Bluffs (30M/11 430420) -Rouge River Central Woodland Valley (30M/14 490520) -Roy Iver's Woodlot (30M/12 075120)
				-5% -river valley (Rouge River, Highland Creek) -marshes (Frenchman's Bay, Duffin Creek)	-	-	-	-marsh -river valley system	Lower Rouge Marshes (30M/14 510508)
				-1% -river corridor (Bronx Creek, Oakville Creek)	-	-	-	-river valley system -upland woodlots	Iroquois Shoreline Woods (30M/5 065155)
		bevelled till plain	9.5	-0% -urbanized	-	-	-	-	-
		drumlinized till plain	1	-0% -urbanized	-	-	-	-	-

2. METHODOLOGY

The following section outlines the four steps undertaken during the natural area overview and site selection procedure.

(i) Natural Features Analysis

The Protection Objective of Ontario's Provincial Parks Policy is "to protect provincially significant elements of the natural and cultural landscape of Ontario". Following an assessment by site district of the life science features with nature reserve potential in the Parks System it was necessary to determine which features were not represented by Parks and which features would need to be included to meet the protection objective of this policy.

Site districts as defined by Hills (1959) served as the sole basis for identifying and selecting vegetation-landform features which needed to be represented in the Parks System to preserve the diversity of landscape types present. However, the physiographic regions proposed by Chapman and Putnam were also considered primarily at the overview stage. By segregating the site district in this way, the identification of the full spectrum of features to be represented was facilitated. Throughout the text of this report, reference is made to these physiographic regions, however, site selection was based entirely on the analysis of the dominant vegetation-landform features of the site district irrespective of their association with the physiographic regions. Reference to these physiographic regions is intended simply to allow the reader to orient and compare the sites selected according to the system proposed by Chapman and Putnam.

Topographic (NTS 1:50,000) and physiographic (Chapman and Putnam, 1972 1:253,440) maps were used to estimate the percentage of Site District 7-4 within each physiographic region. Within each section of the physiographic region, the area frequency of the various vegetation-landform features were recorded. For each vegetation-landform feature, estimates of the percentage of the area remaining in a natural and undisturbed state were made and tabulated.

Features represented by Parks and those missing from the system were listed. Sections(ii)to(iv)of the Methodology outline the steps followed to document and select the best available examples of the dominant vegetation-landform features within the site district. Candidate nature reserves were chosen to represent the missing features identified through the natural features analysis. Table 2 tabulates the time spent on each step.

(ii) Review of Background Information

Existing information on file at the Ministry of Natural Resources, Central Region, Parks and Recreation Section, was compiled according to physiographic regions and landforms by P. Terpstra. This information is presented in Appendix D. Major sources of information for this site district included Environmentally Sensitive Areas (ESA) reports and supplementary sources such as published articles, internal government reports and unpublished manuscripts. Ministry of Natural Resources Sensitive Areas, Environmentally Data Cards and International Biological Program (IBP) survey sheets provided additional information.

TABLE 2. TIME ALLOCATION FOR NATURAL FEATURES ANALYSIS AND NATURE RESERVE
SELECTION PROCEDURE FOR SITE DISTRICT 7-4

<u>STEP</u>	<u>DAYS</u>
1. Natural Feature Analysis (overview of natural landscape and identification of life science features not represented by Parks).	4
2. Review of Background Information (review of topographic maps, physiographic maps, airphotos and data; selection of sites for field checking).	4½
3. Field Reconnaissance (by automobile and foot).	4½
4. Site Evaluation (final review, comparison and evaluation of significant sites for candidate nature reserves; Environmental Data Card preparation and mapping).	5

Following the review of topographic and physiographic maps and the background data, representative life science sites with nature reserve potential were selected for detailed airphoto analysis. Where no information was available, sites were selected strictly from maps. The number of potential sites was reduced through airphoto analysis and a list was prepared for field investigation.

The following five criteria were the basis for all phases of site selection and evaluation. Sites illustrating similar features were compared in terms of representation, diversity, condition, ecological considerations and special features.

(a) Representation - Representation of the remaining natural features of the site district was of primary importance. The dominant vegetation-landform features of the site district were given special emphasis.

(b) Diversity - Diversity was appraised in terms of the number and range of vegetation-landform features or habitats found within a site. The representation value of a site usually increases in proportion to the diversity of habitats contained within the site.

(c) Condition - The degree of past disturbance to the main feature(s) of the site was assessed. Logging, grazing, fire, drainage, flooding, mining, housing developments, transportation and utility corridors and recreation were some of the impacts that were considered. Because all of southern Ontario has been effected by human disturbance to varying degrees, none of the sites selected are pristine.

(d) Ecological Considerations - Ecological considerations such as size, shape, buffering from adjacent land use and watershed location were also weighed. Generally, larger sites, which would be more likely to maintain stable and diverse natural communities, were chosen over smaller sites. However, for certain life science features only small remnant sites are left, especially in the extreme southern part of Ontario (Site Region 7). In such cases, sites that were close together or linked were ranked higher than widely spaced, small areas. Recent work on island biogeography (Diamond, 1975) suggests that species extinctions are less likely to occur in larger sites, linked sites or closely spaced sites than in small, isolated sites. Headwater areas and watershed units where some degree of control over inputs would be possible were given special attention.

(e) Special Features - Allowance was also made for special features such as the presence of rare and endangered species, species of phytogeographical interest (significant species), nesting sites for colonial birds such as heronries, and concentrations of breeding and/or migratory waterfowl. The special features criterion was of secondary importance; it was applied only after representation, diversity, condition and ecological considerations had been assessed. Because detailed and complete biological data was lacking for most sites, caution was exercised in comparing the special features of sites with different levels of background data.

(iii) Field Reconnaissance

During the compilation of natural areas information for this site district, a total of four and one-half days, September 9-12, and 23, 1980, were spent field checking Site District 7-4. A pre-selected route was travelled by automobile and to a lesser extent by foot throughout the site district during which forty pre-selected sites were field checked. Each site was investigated for one-half to two hours and included an examination of as many different biological communities and site types as time permitted. General topography, soil types, site drainage, vegetation communities, fauna, condition, surrounding landscape features and land use were noted and recorded. Due to time constraints, an additional five sites were checked solely by airphoto interpretation and existing background information.

(iv) Site Evaluation

Following field reconnaissance, each site was reviewed, compared and evaluated within its vegetation-landform unit. Poor quality sites were deleted and the remainder were denoted as significant sites (see Glossary). Following further evaluation, candidate nature reserves (see Glossary), were selected from the list of significant sites. Representation, diversity, condition and ecological considerations were weighted equally in the evaluation procedure while special features were considered less important. A further analysis of candidate nature reserves led to the identification of the best quality sites to represent each dominant vegetation-landform type. Environmental Data Cards were prepared for each significant site and one page nature reserve check-sheets for each candidate nature reserve (Appendix A). Location and boundaries of each significant site and candidate nature reserve were mapped on 1:50,000 topographic maps and all data were placed on file at the Ministry of Natural Resources, Central Region, Parks and Recreation Section.

The preparation of this report involved the compilation of existing data on the natural areas of Site District 7-4. This data included available information on Environmentally Sensitive Areas in the site district, airphoto review, topographic map review, and some contact with individuals knowledgeable about the site district. A limited amount of time was devoted to field checking of sites in order to assess their current condition and the degree of representation offered by each.

The emphasis of this study was directed towards vegetation-landform features. Therefore, areas of high quality wildlife and fisheries habitat, and special sites such as concentrations of rare or endangered flora and fauna, are generally missing unless otherwise a component of a representative vegetation-landform feature.

3. CANDIDATE NATURE RESERVES

The preliminary overview process identified four dominant vegetation-landform features remaining in a relatively natural undisturbed state. The four types include river/lakefront marshes, shoreline cliffs, river valley systems and upland woodlots. Additionally, two relict prairie communities and two remnant shoreline beach/swale and dune sites were identified. Due to their small areal size and disturbed nature, they were not considered significant for representation. They are recommended for further investigation and possible protection as special areas. Appendix B presents a summary of the available information for these areas.

On completion of the site district evaluation exercise, several new sites and additional information for the documented sites in Appendix D were brought to the author's attention. This new information requires that each site be re-examined and compared to other similar sites within its vegetation-landform unit. This was not possible in this report, thus these sites were placed in Appendix C: Additional Sites Requiring Field-Checking and Evaluation.

Table 1 summarizes the natural features analysis and nature reserve selection procedure according to physiographic region and vegetation-landform feature. The results of the analysis are presented in the final column - Candidate Nature Reserves Selected to Represent the Missing Features. Of the total forty-five areas examined, twenty-five were chosen as significant sites and of these, eight as candidate nature reserves (Table 3). The location of the eight candidate nature reserves is shown on Figure 2.

Of the eight candidate nature reserve sites selected, five offer the best representation of the dominant features. The Scarborough Bluffs are the highest and most continuous stretch of shoreline cliffs along Lake Ontario in Site District 7-4. The Bronte Creek Provincial Park Proposed Nature Reserve Zones represent the least disturbed, highly diverse continuous stretch of forest corridor, and provide a forest progression from floodplain, bottomlands, slope to tableland. Several Carolinian species and prairie habitats are found here. The Lower Rouge Marshes provide habitat for relatively high numbers of breeding and migratory waterfowl, are moderately large and offer a variety of marshland vegetation types. Two upland woodlots included are Boyd Conservation Area and Adjacent Lands and Iroquois Shoreline Woods; the former illustrates a relatively undisturbed example of ravine vegetation types while the latter represents the best remaining example of relatively undisturbed, terrace woodlands in Site District 7-4.

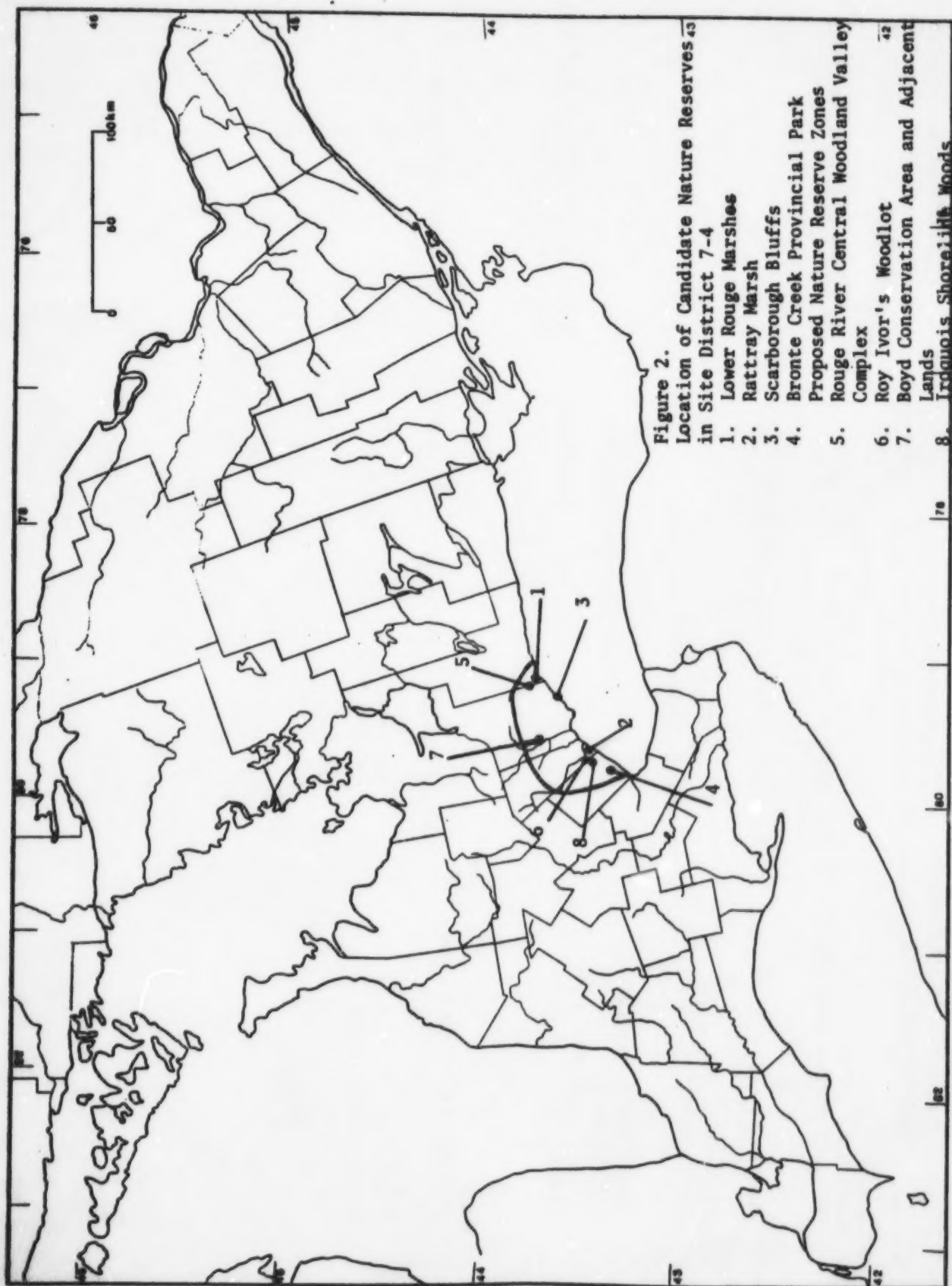
The other three candidate nature reserves selected are Rattray Marsh, Rouge River Central Woodland Valley Complex and Roy Ivor's Woodlot. Rattray Marsh is the last remaining lakefront marsh from Burlington to Toronto and provides a good example of marshland zonation, however, the Lower Rouge Marshes are much larger in size, provide excellent waterfowl breeding habitat and are buffered by the steep ravine slopes. The Rouge River Central Woodland Valley Complex contains a variety of moderately disturbed river valley vegetation types and is the largest continuous woodland habitat remaining in Metro Toronto. Finally, Roy Ivor's Woodlot is the third upland woodlot selected; despite its moderately disturbed nature, it contains a good variety of upland vegetation types and a relict mature white pine stand.

TABLE 3: LIST OF SIGNIFICANT SITES AND CANDIDATE NATURE RESERVES IN
SITE DISTRICT 7-4

VEGETATION-LANDFORM FEATURE AND PHYSIOGRAPHIC REGION	SIGNIFICANT SITE	CANDIDATE NATURE RESERVE
WETLANDS		
River/Lakefront Marsh	Duffin Creek Marshes (30M/14 580535)	Lower Rouge Marshes (30M/14 510508)
Iroquois Plain - clay	Lower Rouge Marshes (30M/14 510508)	
	Shoal Point Marsh (30M/15 620545)	
- sand plain	Rattray Marsh (30M/12 135190)	Rattray Marsh (30M/12 135190)
	Credit River Marshes (30M/12 130230)	
SHORELINE		
Bluff	Scarborough Bluffs (30M/11 430420)	Scarborough Bluffs (30M/11 430420)
Iroquois Plain - sand plain	East Point (30M/14 480465)	
RIVER VALLEY SYSTEM		
Iroquois Plain - sand plain	Rouge River Central Woodland Valley Complex (30M/14 490520)	Rouge River Central Woodland Valley Complex (30M/14 490520)
	Finch Avenue Meander Scar (30M/14 450540)	
	Morningside Tributary Ravine (30M/14 455522)	
Iroquois Plain - sand plain/ South Slope - shale	Credit River at Erindale (30M/13 080230)	
South Slope - drumlinized till plain	Georgetown Credit River Valley (30M/12 905340)	
- drumlinized	Bronte Creek Provincial Park Proposed Nature Reserve Zones (30M/5 005070)	Bronte Creek Provincial Park Proposed Nature Reserve Zones (30M/5 005070)
till plain/shale	Oakville Creek (30M/5 980140)	
- drumlinized		
till plain/till moraine	Humber River (30M/13 120540)	
Peel Plain - bevelled till plain		

TABLE 3: LIST OF SIGNIFICANT SITES AND CANDIDATE NATURE RESERVES IN
SITE DISTRICT 7-4

VEGETATION-LANDFORM FEATURE AND PHYSIOGRAPHIC REGION	SIGNIFICANT SITE	CANDIDATE NATURE RESERVE
UPLANDS		
Sand Plain		
Iroquois Plain - sand plain	Roy Ivor's Woodlot (30M/12 075220) Cawthra Woods (30M/12 150260)	Roy Ivor's Woodlot (30M/12 075220)
Peel Plain - sand plain	Huttonville Valley (30M/12 975332)	
Till Plain		
South Slope - drumlinized till plain	Creditview Woods (30M/12 078255)	
Peel Plain - drumlinized till plain	Meadowvale Station Woods (30M/12 034301)	
-bevelled till plain	Boyd Conservation Area and Adjacent Lands (30M/13 140525) Kleinburg Woodlots (30M/13 140540)	Boyd Conservation Area and Adjacent Lands (30M/13 140525)
Shale		
Iroquois Plain/South Slope - shale	Iroquois Shoreline Woods (30M/5 065155)	Iroquois Shoreline Woods (30M/5 065155)
South Slope - shale	Stavebank Oak Woods (30M/12 120235)	



4. CONCLUSIONS

A total of eight candidate nature reserves were selected to represent the typical vegetation-landform features of Site District 7-4. They include two river-lakefront marshes - The Lower Rouge Marshes and Rattray Marsh, one shoreline cliff - Scarborough Bluffs, two river valley systems - Bronte Creek Provincial Park Proposed Nature Reserve Zones and Rouge River Central Woodland Valley Complex, and three upland woodlots - Roy Ivor's Woodlot, Boyd Conservation Area and Adjacent Lands and Iroquois Shoreline Woods. Priority should be given to the Lower Rouge Marshes, Scarborough Bluffs, Bronte Creek Provincial Park Proposed Nature Reserve Zones, Boyd Conservation Area and Adjacent Lands and Iroquois Shoreline Woods.

These candidate nature reserves require further research to determine the feasibility of their protection over the long term. Land-use designation of the site and surrounding land and other environmental factors (i.e., size of watershed, etc.) effecting present and future stability should be assessed. Candidate nature reserves which can be feasibly managed in a stable condition over the long term, should either be directly acquired by public agencies such as the Ministry of Natural Resources, Conservation Authorities, the Nature Conservancy of Canada and/or individual naturalist clubs. Alternatively, the present owners should be encouraged to work cooperatively to protect and manage the area through private land agreements. The significant sites also are valuable ecological areas which should receive protection through district and municipal land-use planning.

GLOSSARY

Areas of Natural and Scientific Interest (ANSI): ANSIs are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage, scientific study or education. ANSIs may vary in level of significance. The most significant of these, Candidate Nature Reserves in the site district reports, may contribute to the achievement of the Ministry's protection objective. Those which do not contribute to the provincial protection objective are referred to as Significant Sites in the Site District Report.

Candidate Nature Reserve: Candidate nature reserves are sites selected on a systematic basis to represent the natural features and landscapes of Ontario and to complement other protected zones in the provincial park system. Candidate nature reserves contain the best examples of the landform and vegetation features of each site district; features that may be of widespread or restricted occurrence within the site district. They are selected after comparison and evaluation of significant sites sharing similar features. Each candidate nature reserve possesses sufficient ecological integrity, buffering capacity and size that protection appears to be a viable management strategy.

Physiographic Region: Chapman and Putnam (1973) described and mapped fifty-two minor physiographic regions within southern Ontario. These physiographic regions are areas with recognizable local landform patterns. Map 1 outlines the physiographic regions that fall wholly or partially within the site district.

Significant Site: A site of at least regional significance and representative of the landform and vegetation features of the site district. Chosen after reviewing the background information available on sites of biological importance, airphoto analysis and field checking of selected areas. After final evaluation and comparison of similar significant sites, some were chosen as candidate nature reserves. However, all significant sites are recommended for protection through the land-use planning process.

Site District: A subdivision of a site region, with a characteristic pattern of physiographic features (Hills, 1959). Site districts are small scale map units that segregate substantial areas from each other on the basis of broad landform patterns. Refer to Figure 1.

Site Region: An area of land within which the response of the vegetation to the features of the landform follows a consistent pattern (Hills, 1959). Refer to Figure 1.

APPENDIX A: NATURE RESERVE CHECK-SHEETS AND ENVIRONMENTAL DATA CARDS FOR
SIGNIFICANT SITES IN SITE DISTRICT 7-4

	Page Number
WETLANDS	
RIVER/LAKEFRONT MARSH	
Lower Rouge Marshes (30M/14 510508) - CNR ¹	21
Ratray Marsh (30M/12 125190) - CNR	23
Credit River Marshes (30M/12 130230)	25
Duffin Creek Marsh (30M/14 580535)	26
Shoal Point Marsh (30M/15 620545)	26
SHORELINE CLIFF	
Scarborough Bluffs (30M/11 430420) - CNR	27
East Point (30M/14 480465)	29
RIVER VALLEY SYSTEM	
Bronte Creek Provincial Park - Proposed Nature Reserve Zones (30M/5 005070) - CNR	31
Rouge River Central Woodland Valley Complex (30M/14 490520) - CNR	33
Georgetown Credit River Valley (30M/12 905340)	35
Oakville (16 Mile) Creek (30M/5 980140)	35
Credit River at Erindale (30M/12 080230)	36
Humber River (30M/13 120540)	36
UPLANDS	
SAND PLAIN	
Roy Ivor's Woodlot (30M/12 075220) - CNR	37
Huttonville Valley (30M/12 975332)	39
Cawthra Woods (30M/12 150260)	39
Finch Avenue Meander Scar (30M/14 450540)	40
Morningside Tributary Ravine (30M/14 455522)	40
TILL PLAIN	
Boyd Conservation Area and Adjacent Lands (30M/13 140525) - CNR	41
Meadowvale Station Woods (30M/12 034301)	43
Creditview Woods (30M/12 078255)	43
Kleinburg Woodlots (30M/13 140540)	44
SHALE	
Iroquois Shoreline Woods (30M/5 065157) - CNR	45
Stavebank Oak Woods (30M/12 120235)	47

1

CNR indicates a candidate nature reserve.

SITE DISTRICT 7-4: WETLANDS - River/Lakefront Marsh

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME Lower Rouge Marshes		MAP NAME Markham	MAP NUMBER 30M/14	UTM REF. 510508
COUNTY, DISTRICT & REGIONAL MUNICIPALITY Metro Toronto		LAT. 43° 47' N	LONG. 79° 07' W	ALT. MIN. MAX. ca. 285 ft.
LOCALITY Mouth of Rouge River		1:50,000 N.T.S. MAP SHOWING AREA BOUNDARIES		
TOWNSHIP LOVE		CONCESSIONS		
AREA 220 acres 88 ha				
OWNERSHIP				
ADMINISTRATION				
FOREST REGION AND DISTRICT D-1	SITE REGION AND DISTRICT 7-4			
MINR REGION AND DISTRICT Central-Maple	CONSERVATION AUTHORITY Metro Toronto			
AERIAL PHOTOGRAPHS		BASE MAP: 437791		
YEAR 1971	ROLL 74	FLIGHT LINE 4333	NUMBER 208-209	

PHYSICAL AND BIOLOGICAL FEATURES

The Lower Rouge Marshes are proposed as an Environmentally Sensitive Area in Metro Toronto by Riley, 1980. Lying just upstream of the mouth of the Rouge River, they contain the following marsh/vegetation types: 15% open water, 42% open water with floating and submergent aquatic vegetation, 36% cattail marsh and 5% graminoid marsh. The Lower Rouge Marshes attract relatively high numbers of migratory and breeding waterfowl. The wooded bottomlands at the base of the slopes contain willow-cottonwood-balsam poplar-Manitoba maple-dogwood-ostich fern with black maple, sycamore and ash in some places. The deciduous ravine slopes lead to residential development on the tablelands.

The forested slopes on the east bank of the Rouge River south of Highway 401 (at UTM grid 505514) are notable for a stand of native red oak, white oak and white pine. The trees range in age from 70 to 143 years. Many rare prairie plant species are present. The area was historically a sandy pine and oak woodland or "barrens".

The southernmost part of the marshes abut pedestrian, parking and angling areas and have been the site of landfill projects by the Metropolitan Toronto and Region Conservation Authority and adjacent property owners. The rivermouth is crossed by a railway bridge.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION ☐
VEGETATION SUMMARY ☐
EVALUATION SHEET ☐
COMMUNITY DESCRS. ☐
COMMUNITY COMPR. LISTS ☐

SUMMARY SPECIES LISTS ☐
PHYSICAL FEATURES MAP ☐
VEGETATION MAP ☐
BIBLIOGRAPHY ☐
PHOTOGRAPHS ☐

MAJOR INFORMATION SOURCES

Hanna, 1980. Airphoto Interpretation;
Riley, 1978 and 1980; Wainio et al, 1973.

EVALUATION AND PRIORITIES

Despite their highly disturbed nature, the Lower Rouge Marshes are the only remaining lakefront marshes in Metro Toronto and contain a variety of wetland types and excellent waterfowl habitat.

Jan. 1981 revised | R. Hanna
Oct. 1982. K.M.Lindsay

To a much lesser degree than is the case with Rattray Marsh, upstream urbanization is causing increased sedimentation and pollution of the Lower Rouge Marshes. The Lower Rouge Marshes are the only remaining lake-front marshes in Metro Toronto. Lakeshore marshes existed historically at the Humber River, Toronto Islands, Ashbridges Bay and Highland Creek (Riley, 1980).

SITE DISTRICT 7-4: WETLANDS - River/Lakefront Marsh
ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME Rattray Marsh		MAP NAME Brampton	MAP NUMBER 30M/12	UTM REF. 12 5190
COUNTY, DISTRICT or REGIONAL MUNICIPALITY Peel		LAT. 43° 31' N	LONG. 79° 36' W	ALT. MIN. MAX. ca. 250 ft. - 275 ft.
LOCALITY mouth of Sheridan Creek in Mississauga				
TOWNSHIP				
LOTS				
CONCESSIONS				
AREA 69 acres 28 ha				
OWNERSHIP Credit Valley Conservation Authority				
ADMINISTRATION Credit Valley Conservation Authority				
FOREST REGION AND DISTRICT D-1	SITE REGION AND DISTRICT 7-4			
MNR REGION AND DISTRICT Central-Maple	CONSERVATION AUTHORITY Credit Valley			
AERIAL PHOTOGRAPHS BASE MAP: 435788				
YEAR 1971	ROLL 37	FLIGHT LINE 4322	NUMBERS 115-117	

PHYSICAL AND BIOLOGICAL FEATURES

Located at the mouth of Sheridan Creek in the City of Mississauga, Rattray Marsh is a small lakefront marsh surrounded by residential development. It is separated from Lake Ontario by a cobble-shingle beach bar vegetated with balsam poplar-cottonwood-willow. Marsh zonation is from beach bar, open water, cattail marsh, meadow carr, green ash swamp, floodplain to hemlock-birch and beech-birch-hemlock-maple-oak forest and surrounding old fields. Carolinian species present include cottonwood, sassafras, witch-hazel, black oak, skunk cabbage (*Symplocarpus foetidus*) and sandbar grass (*Cenchrus longispinus*). Several regionally and provincially rare plants have also been recorded. The marsh is fed by Sheridan Creek including numerous storm sewers, springs and waves from Lake Ontario. Upstream urbanization has resulted in sedimentation and pollution of the marsh and an associated decrease in plant diversity and available marshbird and waterfowl breeding habitat. Additionally, the City of Mississauga has constructed a sewer pumping station in one of the productive backwaters of the marsh and a maintenance road running along the marsh has been landscaped with exotic grass mixtures and non-native trees. The area is owned by the Credit Valley Conservation Authority.

Despite its small size and highly disturbed nature, Rattray Marsh offers a good example of marshland zonation with some upland fringe.

DATA SHEETS ATTACHED		MAJOR INFORMATION SOURCES	
PHYSICAL DESCRIPTION	☐	Credit Valley ESA, 1979; Hanna, 1980; Hanna, 1980. Airphoto Interpretation; IBP, 1970; Wainio et al, 1973.	
VEGETATION SUMMARY	☐		
EVALUATION SHEET	☐		
COMMUNITY DESCRS.	☐		
COMMUNITY COMPLISTS	☐		
SUMMARY SPECIES LISTS	☐		
PHYSICAL FEATURES MAP	☐		
VEGETATION MAP	☐		
BIBLIOGRAPHY	☐		
PHOTOGRAPHS	☐		

EVALUATION AND PRIORITIES

Rattray Marsh is the last remaining lakefront marsh between Burlington and Toronto. Although very small and disturbed, it provides a good example of marshland zonation.

DATE COMPLETED January 12, 1981	COMPILED BY R. Hanna
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SITE DISTRICT 7-4: WETLANDS - River/Lakefront Marsh

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Ratray Marsh	30M/12	125 190
BRIEF DESCRIPTION 11 ha lakefront marsh situated at the mouth of Sheridan Creek in Mississauga and surrounded by intense residential development. Owned jointly by City of Mississauga and Credit Valley Conservation Authority. Separated from lake by cobble-shingle bar with one outlet. Marsh zonation from beach, open water, cattail marsh, meadow, carr, green ash swamp floodplain to hemlock-birch and beech-birch-hemlock-maple uplands and old fields; contains some SOURCES Credit Valley ESA, 1979; Hanna, 1980. Airphoto interpretation; Hanna, 1980; Macdonald, 1970; Wainio et al. 1973.				
FIELD SURVEY (DATE)		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
Summer 1980				Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3	

carolinian vegetation. Marsh fed by springs, waves from Lake Ontario and Sheridan Creek, which includes numerous storm sewers. Sedimentation and pollution of marsh due to urbanization of creek has decreased plant diversity and available waterfowl breeding habitat. Last remaining marsh along western lakefront from Toronto to Burlington.

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Credit River Marshes	30M/12	133230
BRIEF DESCRIPTION In the City of Mississauga, remnant sections of cattail-sedge-rush marsh and aquatic vegetation once common along lower reaches of Credit River occur 1 km upstream from the mouth for a 2 km stretch. The marshes (30 ha) grade into willow floodplain and sugar maple-beech-red oak slope; the tablelands contain residential development. The marshes are relatively undisturbed due to their inaccessibility and isolated nature. Important breeding area for marsh birds.				
SOURCES Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979.				
FIELD SURVEY (DATE)		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
Sept. 11/80				Hanna, 1980
Hanna				
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3	

Candidate nature reserve.

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Lower Rouge Marshes	30M/14	513504
BRIEF DESCRIPTION 36 ha lakeshore marsh at mouth of Rouge River of which 24 ha are proposed as an ESA in Metro Toronto by Riley, 1980. The southernmost marsh is in need of restorative management. The upper marshes are 15% open water, 42% marsh and 5% graminoid marsh. The tablelands are residential development. Marsh attracts high numbers of migratory and breeding waterfowl. Contains several nationally and provincially rare plants. Only remaining lakeshore marsh in Metro. A candidate nature reserve.				
SOURCES Hanna, 1980. Airphoto Interpretation; Riley, 1978 and 1980; Wainio et al. 1973.				
FIELD SURVEY (DATE)		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
Sept. 9/80				Hanna, 1980
Hanna				
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3	

SITE DISTRICT 7-4: WETLANDS - River/Lakefront Marsh

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Duffin Creek Marshes	30M/14	580535

BRIEF DESCRIPTION
 Open water marsh (80 h) at mouth of Duffin Creek 1 km south of Pickering. Three large open water areas fringed by cattails; one cattail marsh. Willow-ash lowland forest fringes marsh; also upstream along creek. Sand beach bar with one outlet vegetated with willow shrub and *Potentilla anserina*. Rottary park on east side of mouth; local fishing spot. Duffin Creek Water Pollution Control Centre discharges into creek. Attracts high numbers of migratory and breeding waterfowl.

SOURCES
 Hanna, 1980. Airphoto Interpretation; Wainio et al. 1973
 Sept. 9/80

EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
		Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
 ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
 PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
 3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Shoal Point Marsh	30M/15	620545

BRIEF DESCRIPTION
 9 ha (21 acres) marsh at mouth of stream, in the Town of Pickering. Separated from Lake Ontario by cobble beach bar with willow, poplar-ash and *Potentilla anserina*. Open body of water with narrow fringe of cattail-bulrush marsh, sedge meadow and alder-willow carr. Migratory and breeding waterfowl. Agricultural fields to north and east. Southwest corner of marsh shoreline is private bird sanctuary and conservation area residential development.

SOURCES
 Hanna, 1980, Airphoto Interpretation; IBP, 1971.

FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
June 12, 1980			
Hanna/Terpstra			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
 ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
 PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
 3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

**SITE DISTRICT 7-4: SHORELINE CLIFF
ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET**

NAME Scarborough Bluffs		MAP NAME Toronto	MAP NUMBER 30M/11	UTM REF. 430420
COUNTY, DISTRICT or REGIONAL MUNICIPALITY Metro Toronto		LAT. 43° 44' N	LONG. 79° 13' W	ALT. MIN. MAX. ca. 250 ft. - 550 ft.
LOCALITY Lake Ontario shoreline in Scarborough		1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000		
TOWNSHIP Scarborough				
AREA 573 acres 232 ha				
OWNERSHIP				
ADMINISTRATION				
FOREST REGION AND DISTRICT D-1	SITE REGION AND DISTRICT 7-4			
MNR REGION AND DISTRICT Central-Maple	CONSERVATION AUTHORITY Metro Toronto			
AERIAL PHOTOGRAPHS		BASE MAP:		
YEAR ROLL FLIGHT LINE NUMBERS				

PHYSICAL AND BIOLOGICAL FEATURES

At their highest point, the Scarborough Bluffs rise 110 m above the level of Lake Ontario. Located in the Borough of Scarborough, these bluffs display the Pleistocene sequence of deposition in Ontario. The deep streamgullies are vegetated with a mixture of birch, poplar, cherry, maple, oak, hawthorne and willow while the steep cliffs are bare. Some sections of the tableland rim contain maple-oak-ash. Numerous metropolitan parks and residential development abutt the cliff rim.

DATA SHEETS ATTACHED		MAJOR INFORMATION SOURCES	
PHYSICAL DESCRIPTION ☐	SUMMARY SPECIES LISTS ☐	Hanna, 1980. Airphoto Interpretation; Parks Canada, 1980.	
VEGETATION SUMMARY ☐	PHYSICAL FEATURES MAP ☐		
EVALUATION SHEET ☐	VEGETATION MAP ☐		
COMMUNITY DESCRS. ☐	BIBLIOGRAPHY ☐		
COMMUNITY COMR LISTS ☐	PHOTOGRAPHS ☐		

EVALUATION AND PRIORITY	
The Scarborough Bluffs are the highest and most continuous stretch of shoreline cliffs in Site District 7-4. They also represent a unique example of cliffs in Canada (Parks Canada, 1980).	
DATE COMPILED January 12, 1981	COMPILED BY R. Hanna

Scarborough Bluffs

30M/11

430420



SITE DISTRICT 7-4: SHORELINE CLIFF

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Scarborough Bluffs	30M/11	438430

BRIEF DESCRIPTION
 Unique example of cliffs in Canada (Parks Canada, 1980), located along Lake Ontario in eastern Metro Toronto. At their highest point, they are 110 km above lake level. Display Pleistocene sequence of deposition in Ontario. Parks and residential development on tableland. Deep stream gullies contain birch, poplar, cherry, maple, oak, hawthorn, willow. A candidate nature reserve.

SOURCES
 Hanna, 1980. Airphoto Interpretation; Parks Canada, 1980

FIELD SURVEY (DATE)	EARTH SCIENCES CHECK SHEET	LIFE SCIENCES CHECK SHEET	DATA CARD COMPLETED
Sept. 23/80			
Hanna/Terpstra		Hanna, 1980	
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK, TORONTO M7A 1W3	

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	East Point	30M/14E	480465

BRIEF DESCRIPTION
 25 m high bluffs and tableland along Lake Ontario 2 km southwest of Highland Creek; owned by Metro Toronto and Region Conservation Authority. Mainly old fields and balsam poplar-trembling aspen stands on tableland; prairie vegetation along railway right-of-way. Stream gullies contain birch-cherry-hawthorn scrub.

SOURCES
 Hanna, 1980. Airphoto Interpretation; Hough, Stansbury, and Michalski, 1980.

FIELD SURVEY (DATE)	EARTH SCIENCES CHECK SHEET	LIFE SCIENCES CHECK SHEET	DATA CARD COMPLETED
Sept. 23/80			
Hanna/Terpstra		Hanna, 1980	
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK, TORONTO M7A 1W3	

SITE DISTRICT 7-4: RIVER VALLEY SYSTEM
ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME Bronte Creek Provincial Park - Proposed Nature Reserve Zones	MAP NAME Hamilton	MAP NUMBER 30M/5	UTM ZONE 005070
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COUNTY, DISTRICT or REGIONAL MUNICIPALITY Halton	LAT. 43° 25' N	LONG. 79° 45' W	ALT. MIN. MAX. ca. 350 ft. - 500 ft.
LOCALITY Bronte Creek	1:50,000 NTS MAP SHOWING AREA BOUNDARIES		
TOWNSHIP LOTS CONCESSIONS			
AREA ca. 306 acres ca. 124 ha			
OWNERSHIP MNR-Parks ADMINISTRATION			
MNR-Parks FOREST REGION AND DISTRICT D-1	SITE REGION AND DISTRICT 7-4		
MNR REGION AND DISTRICT Central-Cambridge	CONSERVATION AUTHORITY Halton Region		
AERIAL PHOTOGRAPHS BASE MAP:			
YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	59	4328	223-225
1978	117	4329	152-158
1978	56	4330	235-257

PHYSICAL AND BIOLOGICAL FEATURES

A narrow deep winding gorge cut through shale and till plain characterizes Bronte Creek located in the town of Oakville. The Park itself lies just north of the Q.E.W. highway. Its 30 m high steep slopes are vegetated with hemlock-white birch-white cedar, sugar maple and yellow oak-red oak-white oak. A relict prairie community inhabits the valley rim. Tableland types include swamp, white oak and mixed oak. In the bottomlands, willow, willow-sycamore and black maple-ash dominate the floodplains. Numerous Carolinian species such as sycamore, hickory, sassafras, yellow oak, black maple, and flowering dogwood are found here. Thirteen species of provincially and nationally rare plants have been recorded. The park is presently surrounded by farmland and park development is concentrated south of the river on the tableland. The valleylands are dissected by an oil pipeline and hydro line across the middle of the park and contain some trails.

The proposed nature reserve zones (Lindsay and Carleton, 1979) in Bronte Creek Provincial Park offer excellent representation of a relatively undisturbed, continuous river valley corridor. They contain a variety of vegetation types displaying the natural progression from floodplain, bottomland, slope to tableland and include prairie habitat, several Carolinian plant species and nationally and provincially rare plants.

DATA SHEETS ATTACHED		MAJOR INFORMATION SOURCES
PHYSICAL DESCRIPTION ☐	SUMMARY SPECIES LISTS ☐	Hanna, 1980. Airphoto Interpretation; Halton Region E.S.A., 1978; Lindsay and Carleton, 1979
VEGETATION SUMMARY ☐	PHYSICAL FEATURES MAP ☐	
EVALUATION SHEET ☐	VEGETATION MAP ☐	
COMMUNITY DESCRS. ☐	BIBLIOGRAPHY ☐	
COMMUNITY COMR. LISTS ☐	PHOTOGRAPHS ☐	

EVALUATION AND PRIORITIES

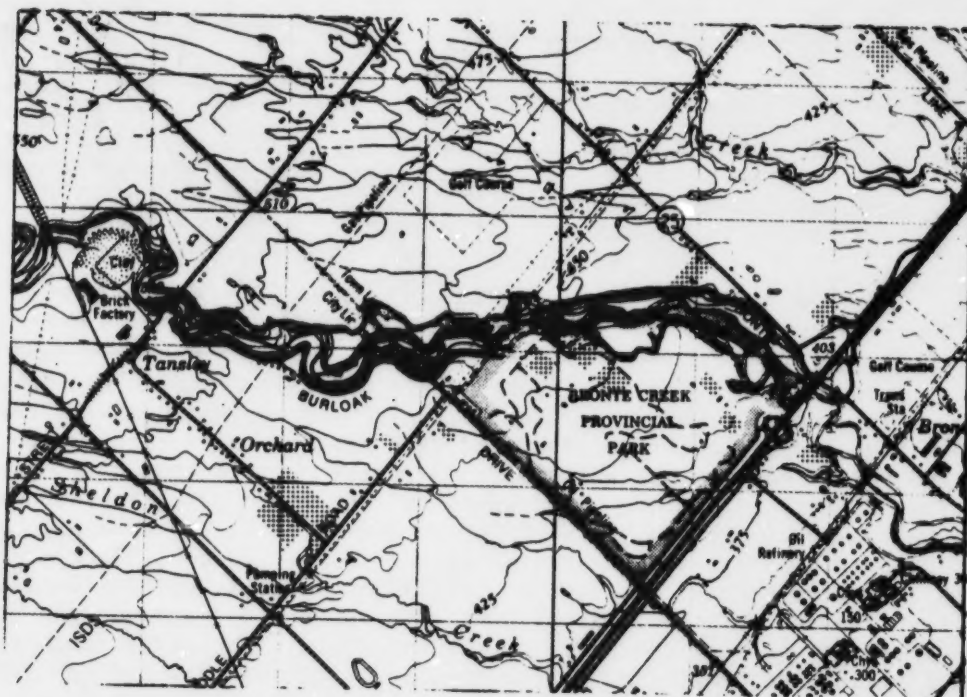
The least disturbed, most continuous, river valley in Site District 7-4. Two Nature Reserve zones surrounded by a National Environment corridor are proposed along the valley

DATE COMPILED January 12, 1981	COMPILED R. Hanna
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Bronte Creek Provincial Park -
Proposed Nature Reserve Zones

30M/5

005070



**SITE DISTRICT 7-4: RIVER VALLEY SYSTEM
ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET**

NAME Rouge River Central Woodland Valley Complex		MAP NAME Markham	MAP NUMBER 30M/14	UTM REF. 49Q520
COUNTY, DISTRICT or REGIONAL MUNICIPALITY Metro Toronto		LAT. 43° 48' N	LONG. 79° 09' W	ALT. MIN. ca. 275 ft. MAX. 425 ft.
LOCALITY Rouge River		1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000		
TOWNSHIP LOTS CONCESSIONS				
AREA 445 acres 180 ha				
OWNERSHIP				
ADMINISTRATION				
FOREST REGION AND DISTRICT D-1				
SITE REGION AND DISTRICT 7-4				
MNR REGION AND DISTRICT Central-Maple		CONSERVATION AUTHORITY Metro Toronto		
AERIAL PHOTOGRAPHS BASE MAP: 437791				
YEAR 1971	ROLL 34	FLIGHT LINE 4334	NUMBERS 184-186	

PHYSICAL AND BIOLOGICAL FEATURES

This complex is situated along Little Rouge Creek adjacent to the Rouge River in Metro Toronto. Its southern boundary abuts Highway 2 and its northern edge, a transmission corridor. Residential development is found on the tablelands while the valley is dissected by Sheppard Avenue. Tree poaching, dumping and off-road use of motorized vehicles occur in this area. Typical vegetation types are willow-Manitoba maple-cedar bottomland, red oak-hemlock-white cedar slopes and hemlock-white pine-sugar maple-beech-black cherry-red oak tableland.

DATA SHEETS ATTACHED		MAJOR INFORMATION SOURCES	
PHYSICAL DESCRIPTION ☐		SUMMARY SPECIES LISTS ☐	Hanna, 1980. Airphoto Interpretation; Riley, 1978 and 1980.
VEGETATION SUMMARY ☐		PHYSICAL FEATURES MAP ☐	
EVALUATION SHEET ☐		VEGETATION MAP ☐	
COMMUNITY DESCRS. ☐		BIBLIOGRAPHY ☐	
COMMUNITY COMP. LISTS ☐		PHOTOGRAPHS ☐	

EVALUATION AND PRIORITIES Containing a variety of moderately disturbed river valley vegetation types, the Rouge River Central Woodland Valley Complex is the largest continuous woodland habitat remaining in Metro Toronto.	
DATE COMPLETED January 12, 1981	COMPILED BY R. Hanna

SITE DISTRICT 7-4: RIVER VALLEY SYSTEM

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
		Georgetown Credit River Valley	30M/12W	905340
BRIEF DESCRIPTION Credit River valley upstream from Norval, north of Georgetown contains old fields, hawthorne-poplar scrub, willow floodplain, sugar maple-Manitoba maple-poplar-basswood lowland and wooded slopes of white cedar and sugar maple-hemlock-beech-red oak. Some areas managed by Upper Canada College. Halton Hills sanitary landfill site nearby. Surrounded mainly by agricultural lands.				
SOURCES Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979; Halton Region ESA, 1978				
FIELD SURVEY DATE		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Sept. 12/80				Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3rd FLOOR WHITNEY BLOCK QUEEN & PARK, TORONTO, M7A 1W3	

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Bronte Creek Provincial Park Proposed Nature Reserve Zones	30M/15	005070
BRIEF DESCRIPTION The narrow, deep winding gorge of Bronte Creek is located in the Town of Oakville, north of the Q.E.W. Its 30 m high steep slopes are vegetated with hemlock, white birch-white cedar, sugar maple and yellow oak-red oak-white oak while the bottomlands contain willow-sycamore and black maple-ash. A prairie relict community occurs on the valley rim. Two Nature Reserve Zones are proposed within the park, along a 6 km stretch of Bronte Creek.				
SOURCES Hanna, 1980. Airphoto Interpretation; Halton Region ESA, 1978; Lindsay and Carleton, 1979				
FIELD SURVEY DATE		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Sept. 12/80				Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3rd FLOOR WHITNEY BLOCK QUEEN & PARK, TORONTO, M7A 1W3	

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Oakville (16 Mile) Creek	30M/5	980140
BRIEF DESCRIPTION Deeply incised wooded river valley, located in the town of Oakville, includes a 10 km stretch along Oakville Creek. Willow-dogwood floodplain, steep bare stepped shale and till terraces and semi-mature tablelands vegetated with sugar maple-black maple-red oak-black oak-white pine, shagbark hickory, hemlock. Southern species include black maple-yellow oak, sassafras, moonseed. Prairie sites on dry south facing slopes. Surrounded by agricultural lands and dissected by highways.				
SOURCES Hanna, 1980, Airphoto Interpretation; Halton Region ESA, 1978				
FIELD SURVEY DATE		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Sept. 12/80				Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3rd FLOOR WHITNEY BLOCK QUEEN & PARK, TORONTO, M7A 1W3	

SITE DISTRICT 7-4 RIVER VALLEY SYSTEM

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Credit River at Erindale	30M/12	080230
BRIEF DESCRIPTION Steep, wooded river valley and floodplain stretching 6 km in length, south of Streetsville. River floodplain Manitoba maple-willow-black maple, valley slope sugar maple-hemlock-beech and sugar maple-red oak-black cherry and tableland white oak-white pine. Tableland on east side is residential development while west side contains Erindale College, orchards and proposed development. Newly constructed bridge over northern portion of site. Provincially rare sycamore and black walnut and other rare plants. Exposed steep shale bedrock in northern portion.				
SOURCES Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979				
FIELD SURVEY (DATE) Sept. 11/80		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna		Hanna, 1980		
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3		

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Humber River	30M/13	120540
BRIEF DESCRIPTION Flat bottomed section of Humber River north of Boyd Conservation Area (Woodbridge) for 4.5 km to MacMichael Collection east of Kleinburg. Willow-balsam poplar-ash-elm floodplain, wet meadow, goldenrod fields, reforested areas and upland sugar maple mixed woods. Several gravel pits in area. Encroaching residential development in north. Deer yard.				
SOURCES Hanna, 1980. Airphoto Interpretation; MNR Sensitive Areas Files				
FIELD SURVEY (DATE) Sept. 10/80		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna		Hanna, 1980		
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3		

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Rouge River Central Woodland Valley Complex	30M/14	490520
BRIEF DESCRIPTION Largest continuous woodland (160 h) remaining in Toronto. Woodland valley complex contains willow-Manitoba maple-cedar bottomland, red oak slopes with hemlock-white cedar and hemlock-white pine-sugar maple-beech-black cherry-red oak tableland. Dissected by Sheppard Avenue. Some residential development on tableland; Hydro Corridor abutts north end. A candidate nature reserve.				
SOURCES Hanna, 1980. Airphoto Interpretation; Riley, 1978 and 1980				
FIELD SURVEY (DATE) Sept. 10/80		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna		Hanna, 1980		
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3		

SITE DISTRICT 7-4: UPLANDS - Sand Plain
ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME Roy Ivor's Woodlot		MAP NAME Brampton	MAP NUMBER 30M/12	UTM REF. 075220
COUNTY, DISTRICT or REGIONAL MUNICIPALITY Peel		LAT. 43° 33' N	LONG. 79° 40' W	ALT. MIN. MAX. ca. 375 ft. - 450 ft.
LOCALITY Mississauga, west of Credit River		1:50,000 NYS MAP SHOWING AREA BOUNDARIES		
TOWNSHIP LOTS CONCESSIONS				
AREA 99 acres 40 ha				
OWNERSHIP owned largely by City of Mississauga as part of greenbelt ADMINISTRATION				
FOREST REGION AND DISTRICT D-1				
SITE REGION AND DISTRICT 7-4				
MNR REGION AND DISTRICT Central-Maple		CONSERVATION AUTHORITY Credit Valley		
AERIAL PHOTOGRAPHS		BASE MAP: 435793		
YEAR 1971	ROLL 32	FLIGHT LINE 4323	NUMBERS 85-87	

PHYSICAL AND BIOLOGICAL FEATURES
 Located in Erin Mills, Mississauga, Roy Ivor's upland ravine site is dissected by Sawmill Creek and Glen Erin Brook. The area abuts residential development on its south, east and north sides and is bisected by a proposed road. To the west are abandoned farmlands, proposed for development. Several trails occur throughout the area and tree poaching and vandalism is prevalent. The southern section consists of a series of steep ridges dominated by semi-mature to mature white pine-hemlock-white birch while the northern section contains gently rolling sugar maple-beech-hemlock, hemlock and sugar maple-red oak-hemlock-white pine-ash uplands.

DATA SHEETS ATTACHED	SUMMARY SPECIES LISTS	MAJOR INFORMATION SOURCES Hanna, 1980, Airphoto Interpretation; Credit Valley ESA, 1979
PHYSICAL DESCRIPTION ☐	PHYSICAL FEATURES MAP ☐	
VEGETATION SUMMARY ☐	VEGETATION MAP ☐	
EVALUATION SHEET ☐	BIBLIOGRAPHY ☐	
COMMUNITY DESCRS. ☐	PHOTOGRAPHS ☐	
COMMUNITY COMP. LISTS ☐		

EVALUATION AND PRIORITIES
 Despite its moderately disturbed nature, Roy Ivor's is a moderately large upland site with a moderately high diversity of upland vegetation types and a relict mature white pine stand.

DATE COMPLETED January 12, 1981	COMPILED BY R. Hanna	37
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SITE DISTRICT 7-4: UPLANDS - Sand Plain

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Huttonville Valley	30M/12	975332
BRIEF DESCRIPTION Terrace sugar maple-beech-hemlock woods and floodplain willow-Manitoba maple-basswood totalling 20 h in size, east of Huttonville and Credit River. Relatively undisturbed; surrounded mainly by agricultural lands. Several rare plant species.			
SOURCES Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979.			
FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Summer/80 Hanna			Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK, TORONTO, M7A 1W3 ENVIRONMENTAL PLANNING SECTION	

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Roy Ivor's Woodlot	30M/12	075220
BRIEF DESCRIPTION 20 h rolling upland forest located in Mississauga and dissected by Sawmill Creek and Glen Erin Brook. South end is a series of steep ridges of semi-mature to mature white pine with semi-mature hemlock-beech-white birch. North end contains gently rolling sugar maple-beech-hemlock, hemlock and sugar maple-red oak-hemlock-white pine-ash. Several trails throughout and local tree cutting. Road has been built through north end for proposed development although site is mostly within green belt. Surrounded by ~~proposed and existing residential development~~ . A candidate nature reserve/ Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979.			
FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Sept. 11/80 Hanna			Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK, TORONTO, M7A 1W3 ENVIRONMENTAL PLANNING SECTION	

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Cawthra Woods	30M/12	150260
BRIEF DESCRIPTION 20 h semi-mature sugar maple-beech woodlot; some younger portions with sugar maple-black cherry. Adjacent to south side of Q.E.W. in Mississauga; Southern edge abutts secondary school. Well-used trails and old estate within forest.			
SOURCES Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979.			
FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Sept. 11/80 Hanna			Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK, TORONTO, M7A 1W3 ENVIRONMENTAL PLANNING SECTION	

SITE DISTRICT 7-4: UPLANDS - Sand Plain

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Finch Avenue Meander Scar	30M/14	450540
BRIEF DESCRIPTION				
15 h floodplain, ravine and slope terraces along meander scar of Rouge River north of Metro Zoo in Toronto. Upland forest of red oak-sugar maple-hemlock-white birch. Provincially rare sycamore; regionally rare black maple.				
SOURCES				
Riley, 1980; Hanna, 1980. Airphoto Interpretation				
FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED	
Sept. 10, 1980			Hanna, 1980	
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3		

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Morningside Tributary Ravine	30M/14	455522
BRIEF DESCRIPTION				
Sharply incised, heavily wooded 10 h ravine almost inaccessible to public south of Rouge River in Toronto. Cedar-hemlock slopes, immature maple, seasonal swamp, white birch woods and remnant white pine stand approximately 110-120 years old.				
SOURCES				
Riley, 1980; Hanna, 1980. Airphoto Interpretation.				
FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED	
			Hanna, 1980	
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3		

SITE DISTRICT 7-4: UPLANDS - Till Plain
ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME Boyd Conservation Area and Adjacent Lands		MAP NAME Bolton	MAP NUMBER 30M/13	UTM REF. 140525
COUNTY, DISTRICT or REGIONAL MUNICIPALITY		LAT. 43 ° 49' N	LONG. 79 ° 35' W	ALT. MIN. MAX. ca. 575 ft. - 650 ft.
LOCALITY 3 km north of Woodbridge		1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000		
TOWNSHIP				
LOTS				
CONCESSIONS				
AREA 119 acres 48 ha				
OWNERSHIP				
ADMINISTRATION				
FOREST REGION AND DISTRICT D-1		SITE REGION AND DISTRICT 7-4		
MNR REGION AND DISTRICT Central-Maple		CONSERVATION AUTHORITY Metro Toronto		
AERIAL PHOTOGRAPHS		BASE MAP: 437793		
YEAR	ROLL	FLIGHT LINE	NUMBERS	
1971	34	4334	162-163	

PHYSICAL AND BIOLOGICAL FEATURES

This site includes the northeast corner of Boyd Conservation Area and the uplands immediately adjacent to its east side. Lying 3 km north of Woodbridge, it is characterized by flat uplands flanking a steep-sided flat bottomland valley. Dense, semi-mature to mature hemlock forest dominates the steep slopes. The uplands support beech-sugar maple-hemlock, hemlock-sugar maple-white birch and red oak-black maple-sugar maple forests.

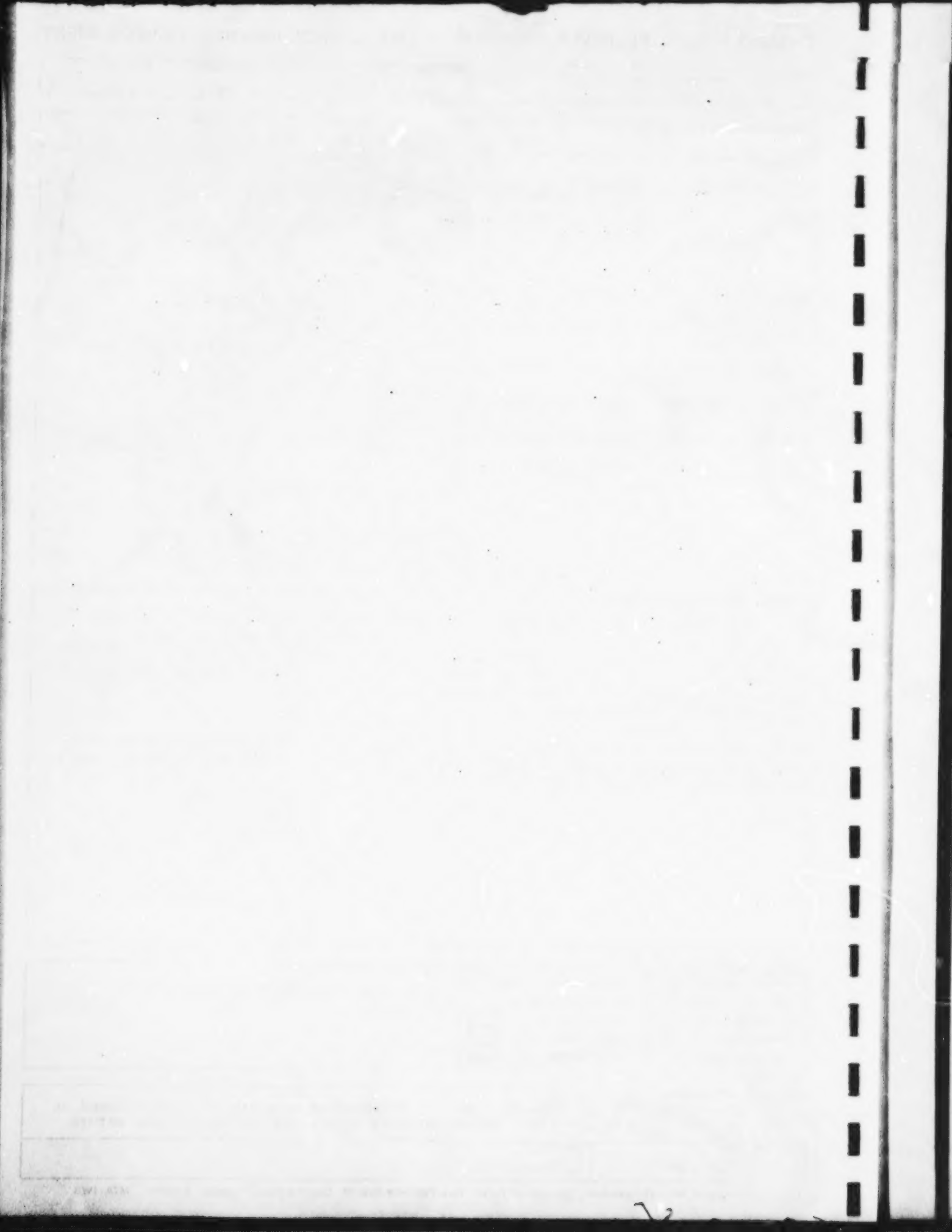
As Boyd Conservation Area is a multiple-use park, trails are found in the area. The site is bisected by a right-of-way. The adjoining lands to the east contain a small residential development in the southeast corner.

DATA SHEETS ATTACHED		MAJOR INFORMATION SOURCES	
PHYSICAL DESCRIPTION ☐	SUMMARY SPECIES LISTS ☐	Hanna, 1980. Airphoto Interpretation; IBP, 1971.	
VEGETATION SUMMARY ☐	PHYSICAL FEATURES MAP ☐		
EVALUATION SHEET ☐	VEGETATION MAP ☐		
COMMUNITY DESCRS. ☐	BIBLIOGRAPHY ☐		
COMMUNITY COMP. LISTS ☐	PHOTOGRAPHS ☐		

EVALUATION AND PRIORITIES

Boyd Conservation Area and Adjacent Lands is recommended as a nature reserve based on its relatively large upland area, and undisturbed nature and variety of semi-mature forest types.

DATE COMPLETED January 12, 1981	COMPILED R. Hanna	41
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SITE DISTRICT 7-4: UPLANDS - Till Plain

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Meadowvale Station Woods	30M/12	034301
BRIEF DESCRIPTION Upland/lowland forest (25 h) bisected by Highway 401, just south of the village of Meadowvale. Surrounded by agricultural fields. The lowland forest, drained by Fletcher's Creek contains black maple-sugar maple-white ash while the uplands are dominated by sugar maple-beech with black cherry-ironwood.			
SOURCES Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979			
FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
Sept. 11/80			Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3	

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Creditview Woods	30M/12	078255
BRIEF DESCRIPTION Small (5h) upland woodlot in Mississauga abutting residential development southeast side and road on southwest side. Remainder surrounded by agricultural fields. Two main vegetation associations; semi-mature swamp white oak-red maple-buttonbush in moist swales between sugar maple-beech ridges. Swamp white oak is a provincially rare Carolinian species.			
SOURCES Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979			
FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
Sept. 11/80			Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3	

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Boyd Conservation Area and Adjacent Lands	30M/13	140525
BRIEF DESCRIPTION Upland, steep ridges located in the northeast portion of Boyd Conservation Area and adjacent woodland to east, 3 km north of Woodbridge totalling 40 ha. Semi-mature to mature hemlock stands, hemlock-sugar maple-white birch, sugar maple-beech-hemlock and red oak-black maple-sugar maple. Several trails; dissected by right-of-way. Residential development adjacent to southeast section. A candidate nature reserve.			
SOURCES Hanna, 1980. Airphoto Interpretation; ISP, 1971.			
FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
Sept. 10/80			Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3	

SITE DISTRICT 7-4: UPLANDS - Till Plain

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Kleirburg Woodlots	30M/13E	140540
BRIEF DESCRIPTION Four woodlots totalling 50 h situated parallel to one another, 3 km southeast of Kleinburg. Surrounded by farmland and adjacent to concession road. Young to semi-mature upland mesic sugar maple-ash-hemlock-white pine and lowland ash-red maple-dogwood. About 1 km east of the Humber River.				
SOURCES Hanna, 1980. Airphoto Interpretation.				
FIELD SURVEY DATE:		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Sept. 10/80 Hanna				Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3	

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME Iroquois Shoreline Woods		MAP NAME Hamilton	MAP NUMBER 30M/5	UTM REF. 065157
COUNTY, DISTRICT or REGIONAL MUNICIPALITY Halton		LAT. 43 ° 29 'N	LONG. 79 ° 41 'W	ALT. MIN. MAX. ca. 400 ft. - 550 ft.
LOCALITY Oakville		1:50,000 NTS MAP SHOWING AREA BOUNDARIES		
TOWNSHIP		LOTS CONCESSIONS		
AREA 207 acres 84 ha				
OWNERSHIP				
ADMINISTRATION				
FOREST REGION AND DISTRICT D-1	SITE REGION AND DISTRICT 7-4			
MNR REGION AND DISTRICT Central-Cambridge	CONSERVATION AUTHORITY Halton Region			
AERIAL PHOTOGRAPHS BASE MAP: 434793				
YEAR 1972	ROLL 14	FLIGHT LINE 4321	NUMBERS 32-33	

PHYSICAL AND BIOLOGICAL FEATURES

Terrace upland woods lying along post glacial Lake Iroquois shoreline characterize this site. The forest is mainly red oak-white oak with red maple, sugar maple, shagbark hickory-beech and basswood and sugar maple-beech. Also included are hawthorn savanna, young ash-shagbark hickory-sugar maple woods and dogwood-cattail lowland. The site lies north of the Q.E.W. Highway and is dissected by Upper Middle Road. Residential development is proposed on the north side of Upper Middle Road. The remainder is surrounded by farmland with an industrial development abutting its southern side.

DATA SHEETS ATTACHED		MAJOR INFORMATION SOURCES	
PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐
		Halton Region ESA, 1978; Hanna, 1980. Airphoto Interpretation; IBP, 1972.	

EVALUATION AND PRIORITIES

The Iroquois Shoreline Woods are one of the largest forested upland areas remaining below the Niagara Escarpment between Toronto and Hamilton and represents a relatively undisturbed and moderately high diversity of forest types on shoreline terrace.

DATE COMPLETED
January 12, 1981

COMPILED
R. Hanna

SITE DISTRICT 7-4: UPLANDS - Shale

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Stavebank Oak Woods	30M/12	120235

BRIEF DESCRIPTION
Rolling upland and slope forest (12 h) of red oak-white oak-black cherry, north of Q.E.W. along east side of Credit River in Mississauga. Largest known northerly stand of black oak. Ontario Hydro right-of-way through site contains prairie species; *Andropogon gerardii*, *A. scoparius* and *Sorghastrum nutans*. Residential development on north side. This site is contiguous with the Credit River Marshes (30M/12 130230).

SOURCES
Hanna, 1980. Airphoto Interpretation; Credit Valley ESA

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
Sept. 11/80			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD	ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3
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1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Iroquois Shoreline Woods	30M/5	065157

BRIEF DESCRIPTION
One of the largest forested upland areas (80 h) remaining below Niagara Escarpment between Toronto and Hamilton. Situated along terrace of glacial Lake Iroquois shoreline in Town of Oakville and dissected by Upper Middle Road. Surrounded by housing, cultivation and industry. Vegetation consists of red oak-white oak forest with red maple-sugar maple-shagbark-hickory-beech-basswood, maple-beech woods, apple-hawthorne scrubland, young ash-shagbark hickory-maple woods and dogwood-cattail-raspberry lowland scrub. Proposed Nature Reserve.

SOURCES
Halton Region ESA, 1980; Hanna, 1980. Airphoto Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
Sept. 12/80			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD	ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3
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1981

APPENDIX B: SITES REQUIRING FURTHER INVESTIGATION AND POSSIBLY
PROTECTION AS SPECIAL AREAS

*Following further evaluation these sites were considered to be of regional significance.

APPENDIX B: SITES REQUIRING FURTHER INVESTIGATION AND POSSIBLY PROTECTION AS SPECIAL AREAS

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Lorne Park Prairie	30M/12	124208
BRIEF DESCRIPTION Remnant, tall grass prairie in Mississauga along CNR right-of-way and adjacent field. Contains characteristic western tall grass species and sandy shoreline species associated with Great Lakes such as <i>Andropogon gerardii</i> , <i>A. scoparius</i> and <i>Sorghastrum nutans</i> . Carolinian species also present - sassafras, black oak. Dirt bike trails. Much of this area is slated for development in near future.			
SOURCES Hanna, 1980. Airphoto Interpretation; Credit Valley ESA, 1979			
FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Sept. 11/80			
Hanna	Hanna, 1980		
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR, WHITNEY BLOCK, QUEEN & PARK, TORONTO M7A 1W3	

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	High Park Prairie Slope	30M/11	240335
BRIEF DESCRIPTION Remnants of oak forest habitat once so common west of Toronto are found along the steep slopes of three ravines in High Park, Toronto. Remnant semi-prairie habitat along northeast side of Grenadier Pond contains sweet fern and blueberry. Area receives heavy park day-use.			
SOURCES Hanna, 1980. Airphoto Interpretation; TFN, 1976			
FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
summer, 1979			
Hanna	Hanna, 1980		
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR WHITNEY BLOCK QUEEN & PARK TORONTO M7A 1W3	

EARTH LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
X	Toronto Islands	30M/11	298305
BRIEF DESCRIPTION Sections of the Toronto Islands contain relatively undisturbed remnant dunes and beach stands, wet meadows lagoon edges and woodlands totalling 50 h. 49 regionally rare and 6 provincially rare plant species occur here. Only vegetated dunes along western part of Lake Ontario; contains <i>Ammophila breviligulata</i> and <i>Elymus canadensis</i> . Woodlands are vegetated with cottonwood. Beach strands are bathing beaches with <i>Cyperus engelmannii</i> , <i>C. odoratus</i> and <i>Caloile edentula</i> .			
SOURCES Hanna, 1980. Airphoto Interpretation; Varga, 1979			
FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
-			Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD		ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION 3RD FLOOR WHITNEY BLOCK QUEEN & PARK TORONTO M7A 1W3	

APPENDIX B: SITES REQUIRING FURTHER EVALUATION AND POSSIBLY
PROTECTION AS SPECIAL AREAS

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Rouge Rivermouth Beach	30M/14E	516506
BRIEF DESCRIPTION				
Tiny, remnant shoreline beach and swale community support- ing numerous rare plants like <i>Cyperus engelmanni</i> and <i>Potentilla paradoxa</i> .				
SOURCES				
Riley, 1980				
FIELD NUMBER (DATE)	EARTH SCIENCE CHECK SHEET		LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
				Hanna, 1980
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PLANNING BRANCH 2ND FLOOR, WHITNEY BLOCK, QUEEN & PARR, TORONTO, M7S 1W3	

APPENDIX C: ADDITIONAL SITES REQUIRING FIELD-CHECKING AND EVALUATION

*Following further evaluation these sites were considered to be of regional significance.

APPENDIX C: ADDITIONAL SITES REQUIRING FIELD-CHECKING AND EVALUATION

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Heart Lake Forest and Bog	30M/12	965440
BRIEF DESCRIPTION				
Lying 2 km northeast of Snelgrove, just north of Heart Lake, this 40 ha site includes deciduous uplands and several wetland depressions containing swamp, marsh and bog vegetation, along with a kettle pond. The terrain is rolling and hummocky, part of a small esker running from Heart Lake to Nortonville. The kettle bog supports significant species such as <i>Woodwardia virginica</i> , <i>Pogonia ophioglossoides</i> , <i>Arceuthobium pusillum</i> . Close to built-up area of Brampton. Lindsay, 1982, Airphoto Interpretation; Catling, 1969.				
FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET		LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
				Lindsay, 1982.
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3	

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Baker's Woods	30M/14	240540
BRIEF DESCRIPTION				
About 35 ha of relatively mature sugar maple-beech-basswood forest growing on bevelled till plain. Baker's Woods is a well-managed sugar maple bush which has been maintained for over 50 years. Located just west of Bathurst Street at Highway 7.				
SOURCES Lindsay, 1982, Airphoto Interpretation; IBP, 1971; M.N.R. Sensitive Areas Files.				
FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET		LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
				Lindsay, 1982
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3	

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	East branch of Don River	30M/14	305490
BRIEF DESCRIPTION				
This site along the east branch of the Don River, south of Finch Avenue contains: cedar swamp; alder swale with open sedge meadows and scattered clumps of tamarack; a hemlock-yellow birch seepage slope and cattail-burreed marsh. Of note are 5 nationally and provincially rare plant species and 30 regionally rare plant species.				
SOURCES Varga, 1980, p. 161; Lindsay, 1982, Airphoto Interpretation.				
FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET		LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
				Lindsay, 1982
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3	

APPENDIX C: ADDITIONAL SITES REQUIRING FIELD-CHECKING AND FURTHER EVALUATION

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Highland Creek Swamp	30M/14	450490
BRIEF DESCRIPTION A relatively large natural area remains along Highland Creek in Scarborough. It includes cedar-tamarack swamp, hemlock-cedar-bottomland forests, sedge-graminoid marsh and sugar maple-red oak-beech slopes. Twelve regionally rare plants are reported. Morningside Avenue south of Hwy. 407 cuts across the valley and lowland forest.				
SOURCES Varga, 1980, p. 157; Lindsay, 1982, Airphoto Interpretation.				
FIELD SURVEY (DATE)		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
				Lindsay, 1982
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 2ND FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3	

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Rouge River Valley south of Finch	30M/14	452535
BRIEF DESCRIPTION A complete, continuous, cross-section of valley habitats are included within this 50 ha site along the Rouge River south of Finch Avenue - deciduous forests at the valley rim, mixed slope and terrace stands, perched swamps and bottomland forests. A series of step-like terraces rise from the river floodplains, to the valley rim. Sycamore, black maple and breeding Wood Duck are some of the significant species found here. East part fenced as part of Metro Zoo.				
SOURCES Riley, 1980, p. 171; Lindsay, 1982, Airphoto Interpretation.				
FIELD SURVEY (DATE)		EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPLETED
				Lindsay, 1982
ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD			ONTARIO MINISTRY OF NATURAL RESOURCES PARK PLANNING BRANCH 2ND FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3	

APPENDIX D: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE

1. SITE DISTRICT 7-4: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE LISTED BY 1:50,000 N.T.S. MAP SHEET

1:50,000 N.T.S. maps included in Site District 7-4, listed from west to east, north to south.

30M/13
30M/12
30M/5
30M/14
30M/11
30M/15

LEGEND TO ABBREVIATIONS

- IBP - Site identified as part of International Biological Program
- API - Site identified by air photo analysis (Environmental Data Card)
- ESA - Environmentally sensitive area identified in a report for a regional municipality, county or conservation authority
1. Credit River Watershed E.S.A., 1979
 2. Halton Region E.S.A., 1978
- SA - Ontario Ministry of Natural Resources Sensitive Areas
- INT - Ontario Ministry of Natural Resources internal reports
- OTHER - Other sources of information such as published articles, government reports and unpublished manuscripts

<u>30M/13 BOLTON</u>	<u>UTM GRID REFERENCES</u>	<u>INFORMATION SOURCE</u>
Humber River - Kleinburg	120550	SA
Boyd Conservation Area	140525	IBP, SA
Vellore Tract	160540	IBP, SA
<u>30M/12 BRAMPTON</u>		
Hungry Hollow Ravine	890320	ESA ₁ , ESA ₂
Georgetown Credit River Valley	905340	ESA ₁ , ESA ₂
Heart Lake Bog	965440	API
Huttonville Valley	975330	ESA ₁
Credit River at Meadowvale	020310	ESA ₁
Meadowvale Station Woods	035300	ESA ₁
Credit River Floodplain at the Reed Dam	048255	ESA ₁
	060245	SA
Mullet Creek	070225	SA
Erindale Station Woods	070245	SA
Roy Ivor's Bird Sanctuary	075220	ESA ₁ , SA
Credit River-Eglinton Ave to Dundas St	075235	ESA ₁
Sandford's Pond	075270	ESA ₁ , SA
Creditview Oak Woods	078255	ESA ₁
Sheridan Shagbark Forest	080195	SA
First Line Woods	090305	ESA ₁ , SA
Credit River at Erindale	092220	ESA ₁
Fudger's Marsh	115201	ESA ₁
Lorne Park Prairie	120205	ESA ₁ , SA
Stavebank Oak Woods	120235	ESA ₁ , SA
Rattray Marsh	125190	OTHER, ESA ₁ , SA
Credit River-Q.E.W. to C.N.R.	140228	ESA ₁
Cawthra Woods	150260	ESA ₁
Lambton Woods	200355	SA
<u>30M/5 HAMILTON</u>		
Zimmerman Valley	945085	IBP
Bronte Creek Valley	985070	IBP, ESA ₂ , SA, INT
Sixteen Mile Creek (Oakville Creek, Oakville Creek Forks Area)	990148	ESA ₂ , (SA) 2
Fourteen Mile Creek Valley	020085	ESA ₂
Bronte Burloak Woods	030040	ESA ₂
Iroquois Shoreline Woods	065155	ESA ₂
Wildflower Woods	085155	ESA ₂
Joshua Creek Valley	100150	ESA ₂
Old Gairdner Estate	100165	SA
<u>30M/14 MARKHAM</u>		
Baker Woods Sugar Bush (Langstaff Woods)	240540	IBP, SA
Victoria Square	300626	SA
East Don	310480	OTHER, SA
East Point	480465	OTHER
Highland Creek	490480	OTHER, SA
Rouge River	490520	OTHER, SA, INT

30M/14 MARKHAMUTM GRID REFERENCESINFORMATION SOURCE

Speirs Woodlot
Woodlot
Whitevale Area

490540
490560
490600
500540
535530
580540

IBP
SA
SA
SA
INT, SA
INT, SA

30M/11 TORONTO

Magwood Park
Smythe Park
High Park
Toronto Islands
Toronto Ravines
Wilket Creek Park
Taylor Creek Park
Massey Creek Park
Scarborough Bluffs

210346
210366
240340
300300
300390
330425
350408
375390
425415

OTHER, SA
OTHER, SA
OTHER, SA
OTHER, SA
SA
OTHER, SA
OTHER, SA
OTHER, SA
INT, OTHER

30M/15 OSHAWA

Shoal Point Marsh

620545

IBP

2. SITE DISTRICT 7-4: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE LISTED
BY PHYSIOGRAPHIC REGION (Chapman and Putnam, 1973)

Physiographic Regions within 7-4:

Peel Plain
South Slope
Iroquois Plain

<u>PEEL PLAIN</u>		
<u>30M/13 BOLTON</u>	<u>UTM GRID REFERENCES</u>	<u>INFORMATION SOURCE</u>
Humber River - Kleinburg	120550	SA
Boyd Conservation Area	140525	IBP, SA
Vellore Tract	160540	IBP, SA
<u>30M/12 BRAMPTON</u>		
Huttonville Valley	975330	ESA ₁
Credit River at Meadowvale	020310	ESA ₁
Meadowvale Station Woods	035300	ESA ₁
First Line Woods	090305	ESA ₁ , SA
<u>30M/5 HAMILTON</u>		
Sixteen Mile Creek (Oakville Creek, Oakville Creek Forks Area)	990148 050115	ESA ₂ , SA(2)
<u>30M/14 MARKHAM</u>		
Baker Woods Sugar Bush (Langstaff Woods)	240540	IBP, SA
Victoria Square	300626	SA
East Don	310480	OTHER, SA
<u>SOUTH SLOPE</u>		
<u>30M/12 BRAMPTON</u>		
Hungry Hollow Ravine	890320	ESA ₁ , ESA ₂
Georgetown Credit River Valley	905340	ESA ₁ , ESA ₂
Heart Lake Bog	965440	API
	060245	SA
Erindale Station Woods	070245	SA
Sandford's Pond	075270	ESA ₁ , SA

30M/5 HAMILTONUTM GRID REFERENCESINFORMATION SOURCE

Zimmerman Valley	945085	IBP
Bronte Creek Valley	985070	INT, IBP, ESA ₂ , SA
Sixteen Mile Creek (Oakville Creek, Oakville Creek Forks Area)	990148 050115	ESA ₂ , SA(2)
Fourteen Mile Creek Valley	020085	ESA ₂

30M/14 MARKHAM

Woodlot	490560	SA
Whitevale Area	490600	SA
Duffin Creek	580540	INT, SA

30M/11 TORONTO

Toronto Ravines	300390	SA
Wilket Creek Park	330425	OTHER, SA
Massey Creek Park	375390	OTHER, SA

IROQUOIS PLAIN30M/12 BRAMPTON

Mullet Creek	060245	SA
Erindale Station Woods	070225	SA
Roy Ivor's Bird Sanctuary	070245	SA
Creditview Oak Woods	075220	ESA ₁ , SA
Sheridan Shagbark Forest	078255	ESA ₁
Fudger's Marsh	080195	SA
Lorne Park Prairie	115201	ESA ₁
Stavebank Oak Woods (Stove-Oak Slope)	120205	ESA ₁ , SA
Ratray Marsh	120235	ESA ₁ , SA
Cawthra Woods	125190	OTHER, ESA ₁ , SA
Lambton Woods	150260	ESA ₁
	200355	SA

30M/5 HAMILTON

Bronte Creek Valley	985070	IBP, ESA ₂
Sixteen Mile Creek (Oakville Creek, Oakville Creek Forks Area)	990148 050115	ESA ₂ , SA(2)
Bronte Burloak Woods	030040	ESA ₂
Iroquois Shoreline Woods	065155	ESA ₂
Wildflower Woods	085155	ESA ₂
Joshua Creek Valley	100150	ESA ₂
Old Gaindner Estate	100165	SA

30M/14 MARKHAM

Highland Creek	490480	OTHER, SA
Rouge River	490520	OTHER, SA
Speirs Woodlot	490540	IBP
	500540	SA

30M/11 TORONTOUTM GRID REFERENCESINFORMATION SOURCE

Magwood Park
Smythe Park
High Park
Toronto Islands
Taylor Creek Park

210346
210366
240340
300300
350408

OTHER, SA
OTHER, SA
OTHER, SA
OTHER, SA
OTHER, SA

30M/15 OSHAWA

Shoal Point Marsh

620545

IBP

P. Terpstra, 1980

APPENDIX E: POLICY FOR AREAS OF NATURAL AND SCIENTIFIC INTEREST

Areas of Natural and Scientific Interest (ANSI) are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage appreciation, scientific study or education.

ANSIs may vary in level of significance. The most significant of these may contribute to the achievement of the Ministry's protection objective.

Where ANSIs occur on public lands managed by the Ministry, it will ensure that the land uses and activities which occur, provide for the protection of identified values.

On private lands, the Ministry will, through cooperation with others, attempt to ensure that landowners are aware of significant features on their properties and seek the owners' cooperation in protecting such features. The identification of areas of natural and scientific interest on private land does not indicate an intent of the Ministry to acquire this land.

ANSIs encourage the protection of additional areas not regulated as provincial parks and provide a focus for both the public and private sectors to contribute to the protection of Ontario's natural heritage.

The policy for Areas of Natural and Scientific Interest is taken from
Backgrounder: Land Use Guidelines. June, 1983.

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